



FACT SHEET

INDUSTRIAL WASTE DISPOSAL WELLS

What is an industrial waste disposal well?

Industrial waste disposal wells are Class V underground injection control (UIC) wells used to inject non-hazardous wastewater generated by a variety of industrial, commercial, and service establishments. Industrial waste disposal wells are frequently configured as gravity-fed dry wells or as industrial drainage (or septic) fields that discharge just below the land surface.

What types of fluids are injected into industrial waste disposal wells?

The fluids injected include industrial process wastewater, equipment and facility wash water, industrial site drainage, air scrubber wastewater, water softener regeneration brine, and fluids from facilities such as machine shops, laundromats, meat processing plants, and carwashes.

Do injectate constituents exceed drinking water standards at the point of injection?

The quality and characteristics of injected process wastewater depend substantially on the nature of the operations producing the waste and the handling and treatment of the waste prior to injection. A variety of organic and inorganic chemicals may be present in injected fluids at low concentrations. Available data indicate that metals (including arsenic, cadmium, chromium, lead, mercury, nickel, selenium, and silver) and organic chemicals (including benzene, carbon tetrachloride, chloroform, toluene, trichloroethylene, and xylenes) have in some instances exceeded primary drinking water standards or health advisory levels.

What are the characteristics of the injection zone of an industrial waste disposal well?

Industrial waste disposal wells typically inject above underground sources of drinking water (USDWs) into various geological formations, terrain, and soils. A very small portion of industrial waste disposal wells are designed to pump large volumes of pre-treated wastewater into relatively deep (greater than 40 feet) geologic formations.

Are there any contamination incidents associated with industrial waste disposal wells?

Documented and suspected contamination incidents associated with industrial waste disposal wells have been reported in 18 States. Apart from the small number of these incidents that can clearly be linked to industrial waste disposal wells, the causes of the majority of these incidents are masked by complications such as the presence of other contamination sources (leaking underground storage tanks and wastewater lagoons). In addition, many of these contamination incidents are more than 10 years old, came from anecdotal information or secondary references, have limited documentation, and resulted from illegally operated Class IV wells that dispose hazardous wastes and are banned nationwide.

Are industrial waste disposal wells vulnerable to spills or illicit discharges?

Some industrial waste disposal wells may be vulnerable to spills or illicit discharges of hazardous substances because they are located in commercial or industrial facilities where such substances are handled and may be released.

How many industrial waste disposal wells exist in the United States?

There are at least 10,675 documented industrial waste disposal wells and more than 37,800 industrial waste disposal wells estimated to exist in the United States.

Where are industrial waste disposal wells located within the United States?

Industrial waste disposal wells are documented in at least 33 states. Ten states (NY, VT, IA, UT, WV, PA, CA, NH, WA, and OH) account for more than 90 percent of the documented number of wells).

How are industrial waste disposal wells regulated in states with the largest number of this type of well?

Individual permit: NH, NY, OH, UT, VT, WA (existing wells), and WV.

Permit by rule: CA, IA, and PA.

Ban: WA (new wells).

Where can I obtain additional information on industrial waste disposal wells?

For general information, contact the Safe Drinking Water Hotline, toll-free at 800-426-4791. The Hotline is open Monday through Friday, excluding federal holidays, from 9:00 a.m. to 5:30 p.m. Eastern Time. For technical inquiries, contact the Underground Injection Control Program, Office of Ground Water and Drinking Water (mail code 4606), EPA, 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460. Phone: 202-564-3751. Email: hotline-swda@epa.gov.
